

Claims:

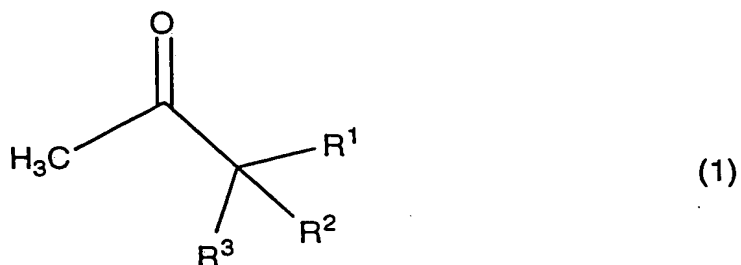
1. A one-part, room temperature moisture curable resin composition comprising

a ketimine prepared by reacting a ketone having a substituent at α position and a polyamine having at least two amino groups within its molecule wherein α position is methylene; and

a main polymer which is an epoxy resin and/or a modified silicone having at least two hydrolyzable alkoxysilyl groups in its molecule.

2. A one-part, room temperature moisture curable resin composition according to claim 1 wherein

said ketone is a compound represented by the following formula (1):

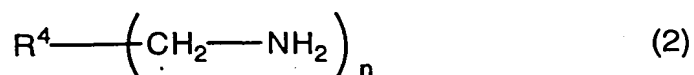


wherein R^1 is a member selected from the group consisting of alkyl groups containing 1 to 6 carbon atoms,

R^2 is methyl group or ethyl group, and

R^3 is hydrogen atom, methyl group, or ethyl group; and

said polyamine is a compound represented by the following formula (2):



wherein R^4 is an organic group (which may be a group containing O, S or N), and

n is an integer of at least 2.

3. A one-part, room temperature moisture curable resin composition according to claim 1 or 2 wherein said polyamine is norbornane diamine, 1,3-bisaminomethylcyclohexane, metaxylylenediamine, or polyamideamine.

4. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 3 wherein said composition contains a phosphorous ester as a curing accelerator at a content of at least 0.005 mol% of the main functional group of said main polymer.

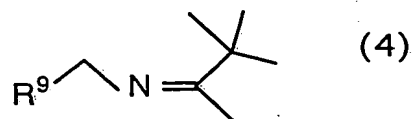
5. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 4 wherein said composition contains a silane coupling agent at a content of 0.1 to 20 parts by weight per 100 parts by weight of said main polymer.

6. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 5 wherein said silane coupling agent is trimethoxyvinylsilane or 3-glycidoxypropyltrimethoxysilane.

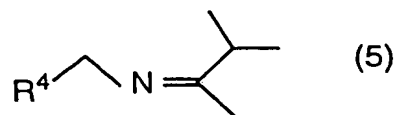
7. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 6 wherein said composition contains a compound having a silyl ester group represented by the following formula (3) at a content of 0.05 to 10 parts by weight per 100 parts by weight of said main polymer.



8. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 7 wherein said composition contains surface treated calcium carbonate, and said ketimine is a ketimine represented by the following formula (4):



wherein R^9 is an organic group including at least one of O, S, N and an aromatic ring, and/or the following formula (5):

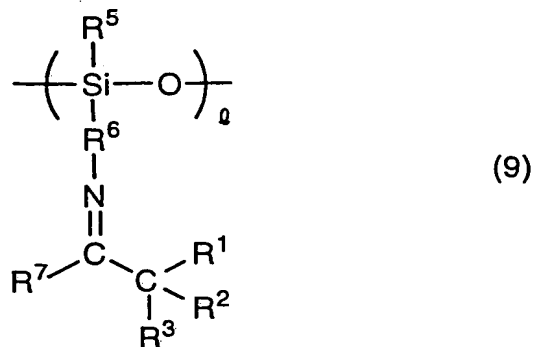


wherein R^4 is an organic group (which may be a group containing O, S or N).

9. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 8 wherein concentration of said ketimine in the one-part, room temperature moisture curable resin composition is up to 1.6 [mmol/g].

10. A one-part, room temperature moisture curable resin composition according to any one of claims 1 to 9 wherein said epoxy resin contains sulfur atom in its skeleton.

11. A silicon containing compound having in its backbone the structure shown in the following formula (9):



wherein R¹ is a member selected from the group consisting of alkyl groups containing 1 to 6 carbon atoms,

R² is methyl group or ethyl group,

R³ is hydrogen atom, methyl group, or ethyl group,

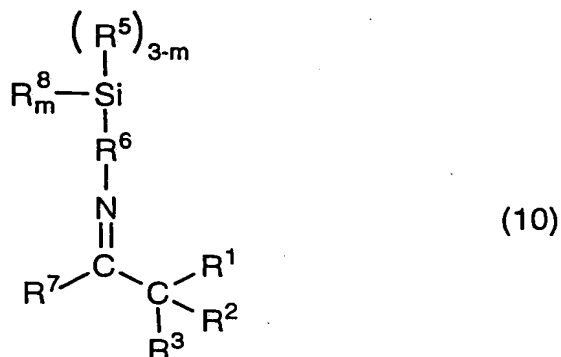
R⁵ is an alkyl group containing 1 to 6 carbon atoms, an alkoxy group containing 1 to 6 carbon atoms, or a monovalent siloxane derivative,

R⁶ is a divalent hydrocarbon group containing or not containing nitrogen atom,

R⁷ is methyl group, ethyl group or isopropyl group, and

1 is an integer of at least 1.

12. A silicon containing compound comprising the structure as shown in the following formula (10):



wherein R^1 is a member selected from the group consisting of alkyl groups containing 1 to 6 carbon atoms,

R^2 is methyl group or ethyl group,

R^3 is hydrogen atom, methyl group, or ethyl group,

R^5 is an alkyl group containing 1 to 6 carbon atoms, an alkoxy group containing 1 to 6 carbon atoms, or a monovalent siloxane derivative,

R^6 is a divalent hydrocarbon group containing or not containing nitrogen atom,

R^7 is methyl group, ethyl group or isopropyl group,

R^8 is a monovalent siloxane derivative, and

m is an integer of 1 to 3.

13. A silicon containing compound according to claim 11 or 12 wherein said R^1 , said R^2 and said R^7 are methyl group, and said R^3 is hydrogen atom or methyl group.

14. A one-part, room temperature moisture curable resin composition containing at least one silicon containing compound according to claims 11 to 13; and an epoxy resin and/or a modified silicone having at least two hydrolyzable alkoxysilyl groups in its molecule.

15. A method for producing said silicon containing compound according to any one of claims 11 to 13 characterized in that said compound is obtained by heating and stirring a compound containing an alkoxysilyl group having amino group in its molecule and a ketone represented by formula (1).

16. A method for producing a silicone compound having epoxy group, a ketimine group, and an alkoxysilyl group in its molecule characterized in that said compound is produced by heating and stirring an alkoxysilane having epoxy group in its molecule, an alkoxysilane having amino group in its molecule, and a ketone.

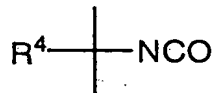
17. A method for producing a silicone compound according to claim 16 wherein said ketone is represented by said formula (1).

18. A silicone compound obtained by the production method according to claim 16.

19. A one-part, room temperature moisture curable resin composition comprising

a silicone compound according to claim 16 or 17; and
 an epoxy resin and/or a modified silicone having at least
 two hydrolyzable alkoxysilyl groups in its molecule.

20. A method for producing a ketimine compound characterized
 in that said compound is produced by reacting a ketone with a
 polyamide, and then adding an isocyanate group-containing
 compound represented by the following formula:



wherein R⁴ is an organic group (which may be a group containing
 O, S or N).

21. A method for producing a ketimine compound according to
 claim 20 wherein said ketimine is synthesized from the ketone
 represented by said formula (1) and the polyamide represented
 by said formula (2).

22. A method for producing a ketimine compound characterized
 in that said compound is produced by reacting a ketone and a
 polyamide, and then adding a silane coupling agent as a
 dehydration agent.